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10/597,330	07/20/2006	Gregory L. Thorne	US040051US2	9356

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EXAMINER	
HICKS, CHARLES V	
ART UNIT	**PAPER NUMBER**
2629	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/597,330	THORNE, GREGORY L.	
	Examiner	Art Unit	
	CHARLES HICKS	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 June 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *07/20/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 19-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A computer program is neither a computer component nor a statutory process, as it is not an "act" or "acts" being performed nor does it define any structural and functional interrelationships between the computer program and other elements of a computer, which permit the computer program's functionality to be realized.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 19, 21-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Kjeldsen (US 7,134,080).

In reference to claim 19, Kjeldsen teaches a computer program that, when executed on a processing system (Kjeldsen, Fig. 2, Computer System 299),

causes the processing system to: determine a position of a viewer relative to a display device (Kjeldsen, col. 2, ll. 56 - col. 3, ll. 13),

and control a display of information on the display device based on the position of the viewer (Kjeldsen, col. 2, ll. 56 - col. 3, ll. 13).

Claim 21 is rejected as being dependent on rejected claim 19 as discussed above and further, Kjeldsen teaches wherein the computer program further causes the processing system to: present the information in a prominent area of the display device relative to the position of the viewer (Kjeldsen, Fig. 3, steps 320-360; col. 2, ll. 61—col. 3, ll.13; col. 7, ll.14-22).

Claim 22 is rejected as being dependent on rejected claim 19 as discussed above and further, Kjeldsen teaches wherein the control of the display includes control of at least one of: location of the information on the display device, size of the information on the display device, and content of the information on the display device (Kjeldsen, col. 3, ll. 63 – col. 4. ll. 3).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meine (US 2002/0080494) in view of Kjeldsen et al. (7,134,080).

In reference to claim 1, Meine teaches a display system (Meine Fig. 2) comprising: a display processor that is configured to present information from a content source to a display device (Meine pg. 1, par. 9).

Meine however fails to teach a detector that is configured to detect a position of a viewer relative to the display device, wherein the display processor presents the information to the display device based on the position of the viewer relative to the display device.

Kjeldsen discloses a detector, analogous in art with that of Meine, that is configured to detect a position of a viewer relative to the display device (Kjeldsen, col. 2, ll. 56-64)

wherein the display processor presents the information to the display device based on the position of the viewer relative to the display device (Kjeldsen, col. 2, ll. 56-64).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display system of Meine such that it is configured to detect a position of a viewer relative to the display device wherein the display processor presents the information to the display device based on the position of the viewer relative to the display device, as taught by Kjeldsen.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to provide a user-friendly interface, not blocked by the user, at a suitable size and orientation as a user moves around an environment (Kjeldsen, Abstract).

Claim 2 is rejected as being dependent on rejected claim 1 as discussed above and further, Meine teaches the display system of claim 1, further including the display device (Meine, Fig. 2, display screen 210).

Claim 3 is rejected as being dependent on rejected claim 1 as discussed above and further, Meine teaches wherein the display device is reflective (Meine, Fig. 1, smart mirror 10; pg. 1, par. 12)

and the display processor is configured to present the information so as to substantially avoid displaying the information in an area corresponding to a reflection of the viewer (Meine, Fig. 1, smart mirror 10 located substantially out of the mirror reflection area).

Claim 4 is rejected as being dependent on rejected claim 1 as discussed above and further, Meine however fails to teach wherein the display processor is configured to present the information in a prominent area of the display device relative to the position of the viewer.

Kjeldsen discloses a display processor, analogous in art with that of Meine, wherein the display processor is configured to present the information in a prominent area of the display device relative to the position of the viewer (Kjeldsen, Fig. 3, steps 320-360; col. 2, ll. 61—col. 3, ll.13; col. 7, ll.14-22).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display system of Meine such that the display processor is configured to present the information in a prominent area of the display device relative to the position of the viewer, as taught by Kjeldsen.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to make the display information and interface more readable and accessible to the user (Kjeldsen, col. 7, ll. 14-22).

Claim 5 is rejected as being dependent on rejected claim 1 as discussed above and further, Meine teaches wherein the content source includes a network access device (Meine, pg. 1, par. 9; the smart mirror is connected to the internet).

Claim 6 is rejected as being dependent on rejected claim 1 as discussed above and further, Meine however fails to teach wherein the detector includes at least one of: an image detector, a sound detector, a camera, a sonar device, and an infrared device.

Kjeldsen discloses a display device, analogous in art to that of Meine, wherein the detector includes at least one of: an image detector, a sound detector, a camera, a sonar device, and an infrared device (Kjeldsen, col. 12, ll. 7-9; inputs to the detector are camera images).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display device of Meine such that the detector includes at least one of: an image detector, a sound detector, a camera, a sonar device, and an infrared device, as taught by Kjeldsen.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to provide beneficial interaction, such as display size and location, between display devices and users who move around (Kjeldsen, col. 1, ll. 14-25).

Claim 7 is rejected as being dependent on rejected claim 1 as discussed above and further, Meine however fails to teach wherein the detector is configured to estimate a projection of an image of a viewer on the display device, based on the position of the viewer.

Kjeldsen discloses a display device, analogous in art with that of Meine, wherein the detector is configured to estimate a projection of an image of a viewer on the display device, based on the position of the viewer (Kjeldsen, col. 11, ll. 54 – col. 12, ll. 3).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display device of Meine such that the detector is configured to estimate a projection of an image of a viewer on the display device, based on the position of the viewer, as taught by Kjeldsen.

As one of ordinary skill in the art would appreciate, the motivation/suggestion for doing so would have been to avoid blocking the display image by the user (Kjeldsen, col. 9, ll. 13-17).

Claim 8 is rejected as being dependent on rejected claim 1 as discussed above and further, Meine however fails to teach wherein the display processor is configured to control at least one of the following, based on the position of the viewer: location of the information on the display device, size of the information on the display device, and content of the information on the display device.

Kjeldsen discloses a display device, analogous in art with that of Meine, wherein the display processor is configured to control at least one of the following, based on the position of the viewer: location of the information on the display device, size of the information on the display device, and content of the information on the display device (Kjeldsen, col. 3, ll. 63 – col. 4, ll. 3).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display device of Meine such that the display processor is configured to control at least one of the following, based on the position of the viewer: location of the information on the display device, size of the information on the display device, and content of the information on the display device, as taught by Kjeldsen.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been a displayed image of the appropriate size and orientation for the position of the user (Kjeldsen, col. 3, ll. 63 – col. 4, ll. 3; col. 4, ll. 36-41).

Claim 9 is rejected as being dependent on rejected claim 1 as discussed above and further, Meine teaches further including a recognition system that is configured to provide an identification of the viewer, wherein the display processor is further configured to present the information to the display device based on the identification of the viewer (Meine, pg. 2, par. 21).

Claim 10 is rejected as being dependent on rejected claim 1 as discussed above and further, Meine teaches further including a database that is configured to store one or more profiles, wherein the display processor is further configured to present the information to the display device based on a select profile of the one or more profiles (Meine, pg. 2, par. 21).

In reference to claim 11, Meine teaches a method of displaying information on a display device (Meine, pg. 1, par. 9).

Meine however fails to teach determining a position of a viewer relative to the display device, and displaying the information on the display device based on the position of the viewer.

Kjeldsen discloses a display method, analogous in art with that of Meine, that determines a position of a viewer relative to the display device, and displays the information on the display device based on the position of the viewer (Kjeldsen, col. 2, ll. 56-64).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display system of Meine such that it determines a position of a viewer relative to the display device, and displaying the information on the display device based on the position of the viewer, as taught by Kjeldsen.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to provide a user-friendly

interface, not blocked by the user, at a suitable size and orientation as a user moves around an environment (Kjeldsen, Abstract).

Claim 12 is rejected as being dependent on rejected claim 11 as discussed above and further, Meine teaches wherein the display device is reflective (Meine, Fig. 1, smart mirror 10; pg. 1, par. 12).

Meine however fails to teach that determining the position of the viewer includes determining an area corresponding to a reflection of the viewer on the display device, and displaying the information includes positioning the information on the display device so as to substantially avoid the reflection of the viewer.

Kjeldsen discloses a display method, analogous in art with that of Meine, that includes determining an area corresponding to a reflection of the viewer on the display device, and displaying the information includes positioning the information on the display device so as to substantially avoid the reflection of the viewer (Kjeldsen, col. 7, ll. 14-22; Kjeldsen teaches that the content of the interface may be varied based on the user position, and the location of the display elements on the display adjusted accordingly. Kjeldsen further teaches determining a position of a viewer relative to the display device, and displaying the information on the display device based on the position of the viewer, as in the discussion concerning claim 11 above).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the reflective display of Meine, such that the steps of determining an area corresponding to a reflection of the viewer on the display device, and displaying the information including positioning the information on the display device so as to substantially avoid the reflection of the viewer were performed, as taught by Kjeldsen. Examiner respectfully submits that the prior art, taken collectively, reads on the claim limitations. Since Kjeldsen discloses determining a position of the viewer relative to the display device and displaying the information on the display device based on the position of the viewer, it would have been within the purview of one having ordinary skill in the art to display the information so as to substantially avoid the reflection of the viewer.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to make the display information and interface more readable and accessible to the user (Kjeldsen, pg. col. 7, ll. 14-22).

Claim 13 is rejected as being dependent on rejected claim 11 as discussed above and further, Meine however fails to teach wherein the display processor is configured to present the information in a prominent area of the display device relative to the position of the viewer.

Kjeldsen discloses a display processor, analogous in art with that of Meine, wherein the display processor is configured to present the information in a prominent area of the display device relative to the position of the viewer (Kjeldsen, Fig. 3, steps 320-360; col. 2, ll. 61—col. 3, ll.13; col. 7, ll.14-22).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display system of Meine such that the display processor is configured to present the information in a prominent area of the display device relative to the position of the viewer, as taught by Kjeldsen.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to make the display information and interface more readable and accessible to the user (Kjeldsen, col. 7, ll. 14-22).

Claim 14 is rejected as being dependent on rejected claim 11 as discussed above and further, Meine teaches wherein the content source includes a network access device (Meine, pg. 1, par. 9; the smart mirror is connected to the internet).

Claim 15 is rejected as being dependent on rejected claim 11 as discussed above and further, Meine however fails to teach wherein determining the position of the viewer includes at least one of: detecting an image, detecting reflected energy, and detecting heat.

Kjeldsen discloses a display device, analogous in art to that of Meine, wherein the detector includes at least one of: determining the position of the viewer includes at least one of: detecting an image, detecting reflected energy, and detecting heat (Kjeldsen, col. 12, ll. 7-9; inputs to the detector are camera images).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display device of Meine such that the determining the position of the viewer includes at least one of: detecting an image, detecting reflected energy, and detecting heat, as taught by Kjeldsen.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to provide beneficial interaction, such as display size and location, between display devices and users who move around (Kjeldsen, col. 1, ll. 14-25).

Claim 16 is rejected as being dependent on rejected claim 11 as discussed above and further, Meine however fails to teach wherein displaying the information includes at least one of the following, based on the position of the viewer: location of the information on the display device, size of the information on the display device, and content of the information on the display device.

Kjeldsen discloses a display device, analogous in art with that of Meine, wherein displaying the information includes at least one of the following, based on the position of the viewer: location of the information on the display device,

size of the information on the display device, and content of the information on the display device (Kjeldsen, col. 3, ll. 63 – col. 4. ll. 3).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display device of Meine such that displaying information includes at least one of the following, based on the position of the viewer: location of the information on the display device, size of the information on the display device, and content of the information on the display device, as taught by Kjeldsen.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been a displayed image of the appropriate size and orientation for the position of the user (Kjeldsen, col. 3, ll. 63 – col. 4, ll. 3; col. 4, ll. 36-41).

Claim 17 is rejected as being dependent on rejected claim 11 as discussed above and further, Meine teaches further including determining an identification of the viewer, wherein displaying the information is further based on the identification of the viewer (Meine, pg. 2, par. 21).

Claim 18 is rejected as being dependent on rejected claim 11 as discussed above and further, Meine teaches further including selecting a profile from a plurality of profiles, wherein displaying the information is further based on the profile (Meine, pg. 2, par. 21).

3. Claims 20, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kjeldsen et al. (US 7,134,080) in view of Meine (US 2002/0080494).

Claim 20 is rejected as being dependent on rejected claim 19 as discussed above and further, Kjeldsen teaches determining an area on the display device, based on the position of the viewer, and positioning the information on the display device so as to substantially avoid the reflection of the viewer (Kjeldsen, col. 7, ll. 14-22; Kjeldsen teaches that the content of the interface may be varied based on the user position, and the location of the display elements on the display adjusted accordingly. Kjeldsen further teaches determining a position of a viewer relative to the display device, and displaying the information on the display device based on the position of the viewer, as in the discussion concerning claim 19 above).

Kjeldsen however fails to specifically teach an area of the display device corresponding to a reflection of the viewer on the display device.

Meine discloses a display device, analogous in art with that of Kjeldsen, such that there is a reflection of the viewer on the display device, (Meine, Fig. 1, smart mirror 10; pg. 1, par. 12).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify Kjeldsen such that the step of determining an area corresponding to a reflection of the viewer on the display

device, and displaying the information including positioning the information on the display device so as to substantially avoid the reflection of the viewer was performed, as taught by Meine. Examiner respectfully submits that the prior art, taken collectively, reads on the claim limitations. Since Kjeldsen discloses determining a position of the viewer relative to the display device and displaying the information on the display device based on the position of the viewer, it would have been within the purview of one having ordinary skill in the art to display the information so as to substantially avoid the reflection of the viewer.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to make the display information and interface more readable and accessible to the user (Kjeldsen, col. 7, ll. 14-22).

Claim 23 is rejected as being dependent on rejected claim 19 as discussed above and further, Kjeldsen however fails to teach wherein the computer program further causes the processing system to determine an identification of the viewer, and control the display of information on the display device based further on the identification of the viewer.

Meine discloses a display device, analogous in art with that of Kjeldsen, wherein the computer program further causes the processing system to determine an identification of the viewer, and control the display of information on

the display device based further on the identification of the viewer (Meine, pg. 2, par. 21).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display device of Kjeldsen such that the processing system determines an identification of the viewer, and controls the display of information on the display device based further on the identification of the viewer, as taught by Meine.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to provide different people, different members of a family, with their own emails and personal appointments (Meine, pg. 2, par. 21).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Uomori et al. (US 2001/0033327) reads on a display and viewing distance.

Woodgate et al. (US 6,008,484) reads on observer tracking directional display.

Gutta et al. (US 6,931,596) reads on the automatic positioning of display.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES HICKS whose telephone number is 571-270-7535. The examiner can normally be reached on Monday-Thursday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz, can be reached on 571-272-3638 The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sumati Lefkowitz/
Supervisory Patent Examiner, Art Unit 2629

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